PROBLEM TYPES

1 = Arithmetic (mixture / Rate / arithmetic & geom. progressions)

2 = Algebra / Interest / word problems

3 = Trigonometry

4 = Plane Geometry & Analytic Geometry

5 = Calculus

6 = Analysis (Real & Complex)

7 = Logic

8 = Probability and Expectation

9 = Number Theory

10 = Combinatorics

11 = Applied Mathematics / Physics

11s = Soap Bubbles

12 = Recreational Mathematics (Magic Squares, Chess, card shuffling, Disections)

13 = Geometric Probability

14 = Average Value / Average Distance / Average Area / Expected Value

15 = Optics

16 = Electricity & Magnetism

17 = Mechanics (Forces)/Pulleys/ Equilibrium / Velocity / Acceleration

18 = Hydrostatics / Hydrodynamics / Gas Dynamics

19 = Thermodynamics

20 = Dynamics

21 = Linear Algebra

22 = Equations / Solving Equations / Identities

23 = Abstract Algebra / College algebra

24 = Polynomials / Invariants / Discriminants / algebraic forms

25 = Matrices and Determinants

26 = Quaternions

27 = Group Theory

28 = Factorize equations

29 = Factor numbers

31 = Spherical Trigonometry

32 = Trig identity constructed geometrically

33 = Sound

34 = Moments of inertia

40 = Geometry (Other)

41 = Triangle & Circle Geometry (Trilinear coordinates)

43 = Projective Geometry / Vanishing Points

44 = Loci

45 = Conics (general)

46 = Solid Geometry /Surfaces / Volumes / 3-D Center of Mass

47 = Geometric Constructions

48 = Parabolas

49 = Non-Euclidean Geometry

51 = Differential Equations / Orthogonal Trajectories

52 = Maxima Minima w/ or w/o calculus

53 = Calculus (Integrals)

55 = Geometric Average & Probability

56 = Cones

57 = Elliptic integrals and Elliptic Forms and functions

58 = Finite Difference

59 = Law of Density

61 = Analysis (Sequences & Series Infinite products

62 = Analysis (Inequalities) & Geometric

63 = Analysis (Approximation / Interpolation

64 = Difference Equations

65 = Error Analysis

66 = Tensors / Hessian Covarients / differential Forms

67 = Complex Variables / Complex Analysis

68 = Limits / L’Hopital’s Rule

70 = Graph Theory

71 = Knot Theory

72 = Voting

73 = Chemistry

74 = Draw a Line / Construct the curve / Inscribe a …

75 = Tetrahedrons & Pyramids

76 = Spheres & Spheriods

77 = Euclidean Constructions

78 = Integer Solutions

79 = curves (not locus or envelope) / arc length

81 = Statistics /error analysis

82 = Moments of Inertia

83 = Sound

84 = Envelopes / evolutes / involutes

85 = Triangles and conics

86 = Ellipses

87 = Hyperbolas

88 = Ovals

89 = Ellipses & Hyperbolas; Parabolas and Hyperbolas

90 = Locus & Envelope

91 = Philosophy /History / Bible / Sociology

92 = Astronomy

93 = Glotonchronology

94 = Calendar Problems / Time / Latitude-Longitude

95 = Partitions

96 = Continued Fractions / Convergents

97 = Voting

98 = Set Theory / Topology / Map Coloring / Graph Theory

99 = Music Theory

COUNTRY CODES

1 = England

2 = France

3 = USA

4 = Italy

5 = Germany

6 = Russia

7 = Australia

8 = English living in France

9 = Ireland

10 = Scotland

11 = Wales

12 = Sweden

13 = Canada

14 = India

15 = Switzerland

16 = Netherlands

17 = French in Belgium

18 = Spanish

19 = French in India

20 = British in Egypt

21 = British in India

22 = British in Italy

23 = Gibraltar

24 = Belgium

25 = British in USA

27 = Dahgestan

29 = South Africa

30 = Bohemia

31 = Austria

32 = Dutch in Germany

33 = Dutch in the UK

34 = Indian in UK

35 = Ceylon

36 = Malaysia

37 = Mauritius

38 = New Zealand

39 = British in Malta

40 = British in Ireland

41 = Hong Kong

42 = Gibraltar

43 = Irish in England, Scotland or Wales

44 = Scottish living in Egland

LIST OF TOWNS / CITIES

Allerton - M1

Anerly - M1

Baden-Baden - M5

Bacup - M1

Bangor - M11

Beith - M10

Birkenhead - M1

Brecon - M11

Bothwell - M1

Castres, Tarn - M2

Catford - M1

Derby - M1

Egham - M1

Elgin - M1

Glenroyd - M1

Greystone - M1

Grimsby - M1

Halewood - M1

Halifax - M1

Hartlepool - M1

Hendon - M1

Ilsley - M1

Kilsyth \_ M10

Lampeter - M11

Liege - M24

Llandyssil - M11

Llanelly - M11

Middlesbrough - M1

Nantua - M2

Newry - M9

Peebles - M10

Penarth - M11

Pesaro - M4

Portora - M9

Redhill - M1

Roehampton - M1

Sandown, IW - M1

St. Asaph - M11

St. Leonards - M1

Stonyhurst - M1

Stroud - M1

Surbiton - M1

Totnes - M1

Vizianagram - M14